



517956

## WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Adjacent property to Rotary Drilling City/County: Crystal City / JEFFERSON Sampling Date: 10-18-11  
 Applicant/Owner: Darrell Coleman State: MO Sampling Point: 1  
 Investigator(s): Grants Section, Township, Range: S 7 T 40 N R 6 E  
 Landform (hillslope, terrace, etc.): Cutoff slough / CHANNEL AREA OF PLATTIN CREEK Local relief (concave, convex, none): Concave  
 Slope (%): 0-3% Lat: 38°12'24.75"N Long: 90°23'24.39"W Datum: S<sup>th</sup> Principal Meridian  
 Soil Map Unit Name: 616014 Haywood Silt loam / Drable Silt loam NWI classification: PFO1L Palustrine Forested Wetland  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100%</u> (A/B)
4. _____					
5. _____					
= Total Cover					
Sapling/Shrub Stratum (Plot size: <u>706 ft<sup>2</sup></u> )				Prevalence Index worksheet:	
1. <u>Cephalanthus Occidentalis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	Total % Cover of:	Multiply by:
2. <u>(Button Bush)</u>				OBL species <u>35</u>	x 1 = <u>35</u>
3. _____				FACW species _____	x 2 = _____
4. _____				FAC species _____	x 3 = _____
5. _____				FACU species _____	x 4 = _____
= Total Cover				UPL species _____	x 5 = _____
				Column Totals:	<u>35</u> (A) <u>35</u> (B)
				Prevalence Index = B/A = <u>1</u>	
Herb Stratum (Plot size: <u>78 ft<sup>2</sup></u> )				Hydrophytic Vegetation Indicators:	
1. <u>Cyperus Acuminatus</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <u>(Flatsedge)</u>				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup>	
3. _____				___ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
4. _____				___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
= Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____					
2. _____					
= Total Cover					

Remarks: (Include photo numbers here or on a separate sheet.)

Flatsedge appears to be young and immature. The area is primarily an unvegetated mudflat. Area appears to be inundated for a large part of the year.

## SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-9	10yr 5/2	70	2.5yr 4/6	20	C	M	SICL	
9-16	10yr 5/1	70	2.5yr 4/6	20	C	M	SICL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☒ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Coast Prairie Redox (A16)  
☐ Iron-Manganese Masses (F12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

## HYDROLOGY

## Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1)  
☐ Sediment Deposits (B2)  
☐ Drift Deposits (B3)  
☒ Algal Mat or Crust (B4)  
☐ Iron Deposits (B5)  
☒ Inundation Visible on Aerial Imagery (B7)  
☒ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)  
☒ Aquatic Fauna (B13) *MUSSELS*  
☐ True Aquatic Plants (B14)  
☐ Hydrogen Sulfide Odor (C1)  
☒ Oxidized Rhizospheres on Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Gauge or Well Data (D9)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☒ Surface Soil Cracks (B6)  
☒ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☒ Saturation Visible on Aerial Imagery (C9)  
☐ Stunted or Stressed Plants (D1)  
☒ Geomorphic Position (D2)  
☒ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0  
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Adjacent property to Rotary Drilling City/County: Crystal City / Jefferson Sampling Date: 10-18-11  
 Applicant/Owner: Daniel Coleman State: Mo Sampling Point: 2  
 Investigator(s): Gramke Section, Township, Range: S 7 T 40 N R 6 E  
 Landform (hillslope, terrace, etc.): Cutoff slough/Channel AREA Local relief (concave, convex, none): Concave  
 Slope (%): 0-3% Lat: 38°12'20.66"N Long: -90°23'25.85"W Datum: S<sup>th</sup> Principal Meridian  
 Soil Map Unit Name: Deeble Silt Loam / Haymore Silt Loam (with...) NWI classification: PFOSS PASTURAGE  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation no, Soil no, or Hydrology no significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation no, Soil no, or Hydrology no naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>2827 ft<sup>2</sup></u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>(Box Elder) Acer Nigrum</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Acer <del>Saccharinum</del> (Silver maple)</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (AB)
4. _____	_____	_____	_____	Prevalence Index worksheet:
5. _____	_____	_____	_____	
= Total Cover				Total % Cover of:
Sapling/Shrub Stratum (Plot size: <u>706 ft<sup>2</sup></u> )				Multiply by:
1. <u>Cephalanthus occidentalis</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	OBL species <u>25</u> x 1 = <u>25</u>
2. <u>(button bush)</u>	_____	_____	_____	FACW species <u>50</u> x 2 = <u>100</u>
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
= Total Cover				Column Totals: <u>75</u> (A) <u>125</u> (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = <u>1.6</u>
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input checked="" type="checkbox"/> Prevalence Index is ≤3.0' _____ Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
= Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

Space Area inundated with no herb stratum in general area



## SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10yr 4/2	80	7.5yr 4/6	20	C	M	SILL	
4-16	10yr 5/1	20	7.5yr 4/6	20	C	M	SILL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☒ Depleted Dark Surface (F7)  
☒ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Coast Prairie Redox (A16)  
☐ Iron-Manganese Masses (F12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No \_\_\_\_\_

Remarks:

## HYDROLOGY

## Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)  
☒ High Water Table (A2)  
☒ Saturation (A3)  
☒ Water Marks (B1)  
☒ Sediment Deposits (B2)  
☐ Drift Deposits (B3)  
☐ Algal Mat or Crust (B4)  
☐ Iron Deposits (B5)  
☒ Inundation Visible on Aerial Imagery (B7)  
☒ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)  
☒ Aquatic Fauna (B13)  
☐ True Aquatic Plants (B14)  
☐ Hydrogen Sulfide Odor (C1)  
☒ Oxidized Rhizospheres on Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Gauge or Well Data (D9)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☒ Saturation Visible on Aerial Imagery (C9)  
☐ Stunted or Stressed Plants (D1)  
☒ Geomorphic Position (D2)  
☒ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present? Yes ☒ No \_\_\_\_\_ Depth (inches): 8-12  
 Water Table Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No \_\_\_\_\_ Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Adjacent property to rotary drilling City/County: Crystal City/Jefferson Sampling Date: 10-18-11  
 Applicant: Daniel Coleman State: MO Sampling Point: 3  
 Investigator(s): Grank Section, Township, Range: S 7 T 40 N R 6 E  
 Landform (hillslope, terrace, etc.): Cut-off Slough / CHANNEL AREA OF PLATTIN CREEK Local relief (concave, convex, none): CONCAVE  
 Slope (%): 0-3 Lat: 38°12'21.04"N Long: 90°23'25.97"W Datum: 5TH PRINCIPAL MERIDIAN  
 Soil Map Unit Name: Deible Silt Loam NWI classification: PFO1A FURKSTAD WETLAND  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)  
 Are Vegetation NO, Soil NO, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐  
 Are Vegetation NO, Soil NO or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

## VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: <u>2827 ft²</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer saccharum (Sugar maple)</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Quercus palustris (Pin oak)</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
4. _____				Prevalence Index worksheet:
5. _____				
<u>105</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Ulmus rubra (Slippery elm)</u>	<u>10</u>	<u>NO</u>	<u>FAC</u>	
2. _____				Total % Cover of: _____ Multiply by: _____
3. _____				OBL species _____ x 1 = _____
4. _____				FACW species <u>105</u> x 2 = <u>210</u>
5. _____				FAC species <u>10</u> x 3 = <u>30</u>
<u>10</u> = Total Cover				FACU species _____ x 4 = _____
Herb Stratum (Plot size: _____)				UPL species _____ x 5 = _____
1. _____				Column Totals: <u>115</u> (A) <u>240</u> (B)
2. _____				Prevalence Index = B/A = <u>2.08</u>
3. _____				Hydrophytic Vegetation Indicators:
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____				
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

## SOIL

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10yr 4/2	80	2.5yr 4/4	20	C	M	SCL	
6-16	10yr 4/2	15	2.5yr 5/6	15	C	M	SCL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Stratified Layers (A5)  
☐ 2 cm Muck (A10)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1)  
☐ Loamy Gleyed Matrix (F2)  
☒ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Coast Prairie Redox (A16)  
☐ Iron-Manganese Masses (F12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No \_\_\_\_\_

Remarks:

## HYDROLOGY

## Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1)  
☐ Sediment Deposits (B2)  
☐ Drift Deposits (B3)  
☐ Algal Mat or Crust (B4)  
☐ Iron Deposits (B5)  
☐ Inundation Visible on Aerial Imagery (B7)  
☒ Sparsely Vegetated Concave Surface (B8)
- ☒ Water-Stained Leaves (B9)  
☐ Aquatic Fauna (B13)  
☐ True Aquatic Plants (B14)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres on Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Thin Muck Surface (C7)  
☐ Gauge or Well Data (D9)  
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Crayfish Burrows (C8)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Stunted or Stressed Plants (D1)  
☒ Geomorphic Position (D2)  
☒ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_

(Includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



Preliminary Jurisdictional Determination Photo Documentation

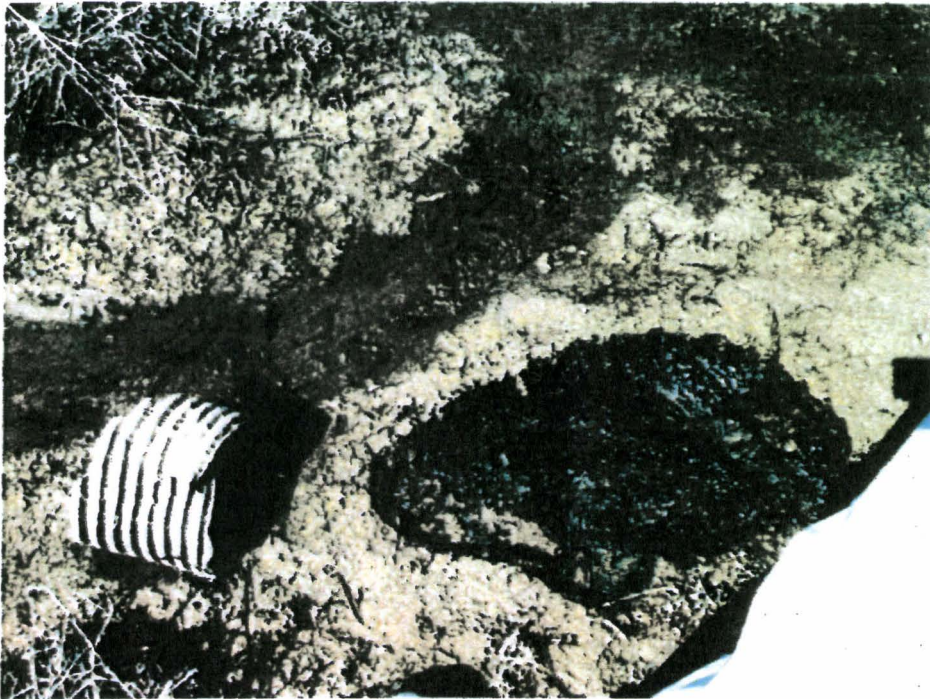


Photo 1a – Saturated sedimentation filling in portion of unnamed tributary and the culvert under the railroad connecting the site to the wetlands near sample point 2 and photo 5 (April 2010).

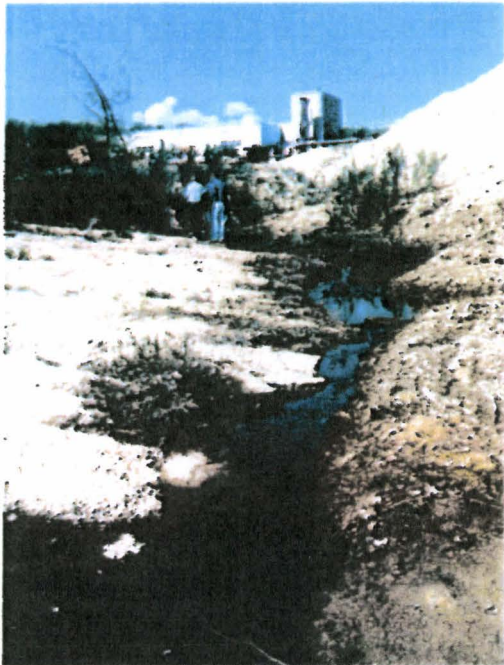


Photo 1b – Remnants of unnamed tributary facing upstream towards Rotary Drilling Building (April 2010).





Photo 2a – Portion of Willer Lake Filled In with Riprap Berm Reportedly required by MDNR for an erosion control measure around the calcium sulfate and fly ash (April 2010).



Photo 2b –Portion of Willer Lake and Forested Wetland filled in with a riprap berm reportedly required by MDNR for an erosion control measure around the calcium sulfate and fly ash (April 2010).





Photo 3 – Saturated area between the fill material and the railroad (April 2011).



Photo 4a – Adjacent Wetland Sample Point 1 (October 2011).





Photo 4b – Near Sample Point 1 showing flow from wetland areas through c ulvert to Plattin Creek (October 2011).



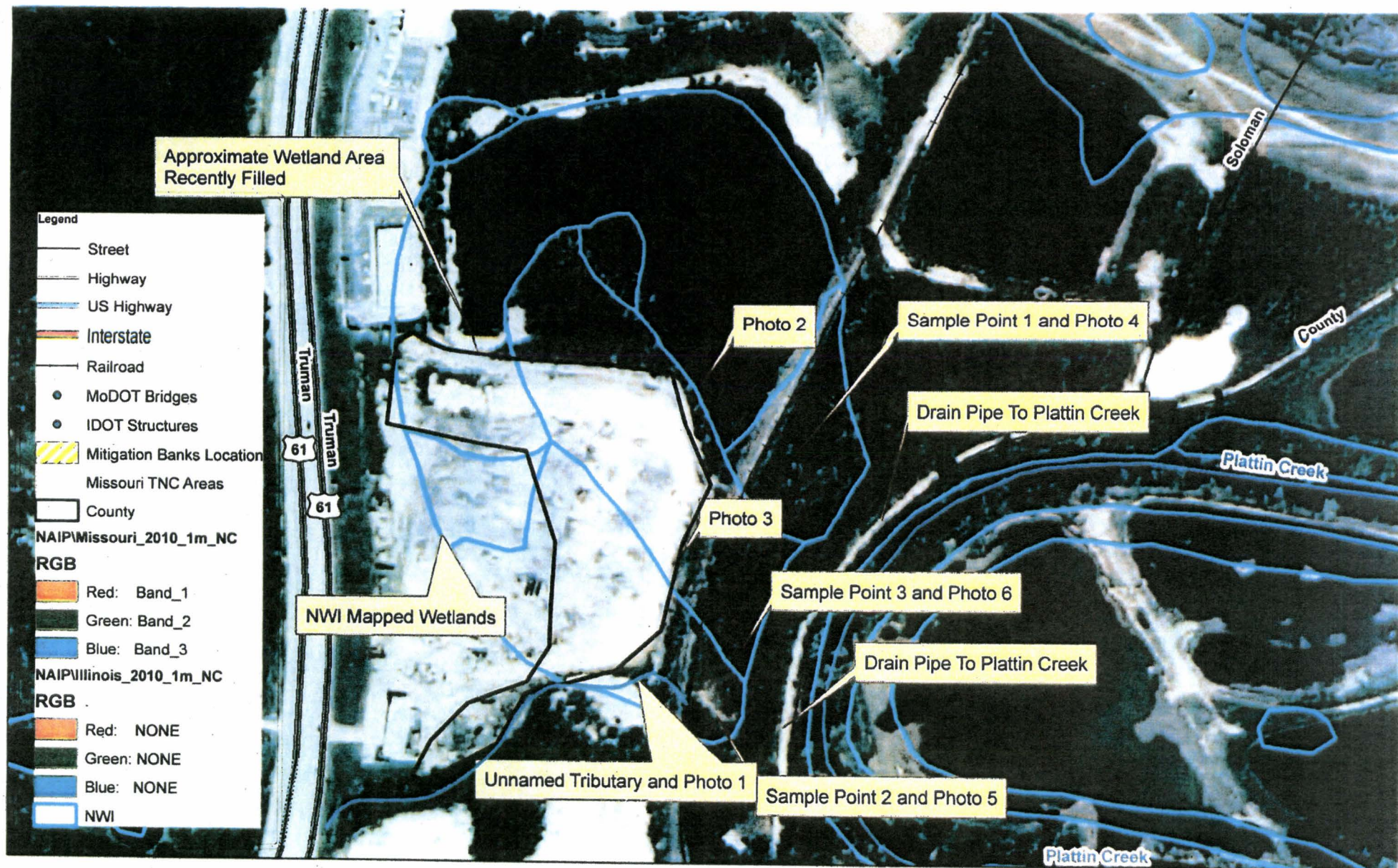
Photo 5 – Adjacent Wetland Sample Point 2 (October 2011).





Photo 6 – Adjacent Wetland Sample Point 3 (October 2011).





**Rotary Drilling 2007 Aerial Photo Map**  
**Project Location Map - MVS-2009-774**  
**Crystal City, Jefferson County, Missouri**

Attachment 1 of 2



0 200 400 800 Feet



**US Army Corps of Engineers**  
 St Louis District



# LANDS INVENTORY

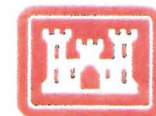
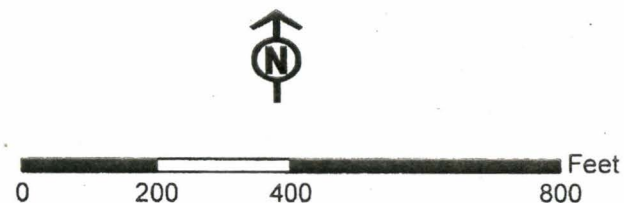
## DEPARTMENT OF THE INTERIOR





**Rotary Drilling NWI Map**  
**Project Location Map - MVS-2009-774**  
**Crystal City, Jefferson County, Missouri**

Attachment 2 of 2



**US Army Corps  
 of Engineers**  
 St Louis District





**FW: preliminary jd**

**Gramke, Robert MVS** to: Delia Garcia, Christopher Muehlberger 11/02/2011 07:37 AM

From: "Gramke, Robert MVS" <Robert.Gramke@usace.army.mil>

To: Delia Garcia/R7/USEPA/US@EPA, Christopher Muehlberger/R7/USEPA/US@EPA

History: This message has been replied to.

1 attachment



document2011-11-02-072359.pdf

Delia and Chris,

This is a draft of my updated preliminary JD of the site. In order to do an approved JD, we would have to be back on site and some of the fill material would have to be removed. This would have to be done in coordination with the parties involved and is usually the responsibility of the alleged violator if they want to challenge the preliminary determination.

I did find an approved JD that Shawn completed for the unnamed tributary that flows through the site. I will send that in the next email. Please review both documents and let me know a good time to call and discuss them.

Rob

-----Original Message-----

From: Robert.Gramke@usace.army.mil [mailto:Robert.Gramke@usace.army.mil]

Sent: Wednesday, November 02, 2011 7:24 AM

To: Gramke, Robert MVS

Subject: preliminary jd

Please see the attached document.

## ***PRELIMINARY JURISDICTIONAL DETERMINATION FORM***

**A. Report Completion Date for Preliminary Jurisdictional Determination (JD):**

**January 12, 2010 (updated 11-1-11)**

**B. Name and Address of Person Requesting Preliminary JD:**

Mr. Darriel Coleman  
Rotary Drilling Supply, Inc.  
P.O. Box 302  
1150 S. Truman Boulevard  
Crystal City, Missouri 63028

**C. District Office, File Name, and Number:**

St. Louis Dist., Coleman Rotary Drilling Supply Filling in Floodplain, MYS-2009-774

**D. PROJECT LOCATION(S), BACKGROUND INFORMATION, AND WATERS:**

State: Missouri  
City: Crystal City  
County: Jefferson

Name of nearest waterbody: Platin Creek (The wetland area appears to be a wetland slough and/or cutoff channel that permanently held water adjacent to and abutting Platin Creek, which flows directly to the Mississippi River. There is a railroad track and an abandoned county road between the wetland area and Platin Creek, but the hydrologic connection remains due to soil texture, culverts, porous railroad embankment, and frequent flooding. The area is frequently flooded by backwater effects of the Mississippi River. Inundation of the area is evident on the aerial photography and on-site evidence such as aquatic fauna, sediment deposits, drift lines, water lines, and large cracks in the ground surface. The culverts are visible from the Coleman Property and from the abandoned County Road.)

Identify amount of waters in the review area: Approximately 1200 linear feet of intermittent tributary and approximately 11 Acres of wetland. Based on aerial photography, approximately 5.8-acres of wetland and 500 linear feet of tributary channel have been impacted over the last five years and the majority within the last 3 years. This determination is approximate because the area is already filled. Additional measurements would be required for a final determination. An approved JD could not be completed until a portion of the fill is removed and would be the responsibility of the alleged violator).

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

**Table 1 - Waters of the U.S.**

Site #	Latitude	Longitude	Stream Flow	Cowardin Class	Estimated amount of aquatic resources in review area	Estimated amount of aquatic resource impact	Class of aquatic resource
1	38.206700	-90.392328	Intermittent	Riverine	1200 linear feet	500 linear feet in the past 5 years	Non-tidal
2	38.206700	-90.392328	Wetland	PEM/PFO/PFOSS	11 - Acres	5.8 - Acres in past 5 years	Non-tidal

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

- ☒ Office (Desk) Determination. Date: 1/12/10 (Visited the site on this same date, but nearly the entire area is filled. The remaining portion of tributary and wetland is disturbed).
- ☒ Field Determination. Date(s): 1/12/10 and 10/18/11 (Approved Determination Not Completed at this time since the entire area on the property appeared to be filled. Adjacent Areas were visited on 10/18/11 to collect data sheets, verify wetlands adjacent to fill area, and confirm the National Wetland Inventory Determination. Adjacent areas are wetland area as shown on the National Wetland Inventory Maps).

**F. SUPPORTING DATA:**

Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Google Earth Pro (1996, 2003, 2008, 2010)
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- ☐ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.
- ☒ Data sheets prepared by the Corps: 10/18/11.
- ☐ Corps navigable waters' study:
- ☐ U.S. Geological Survey Hydrologic Atlas:
- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite quad name: Festus.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey - Jefferson County.
- ☒ National wetlands inventory map(s). Cite name: Festus.
- ☐ State/Local wetland inventory map(s):
- ☐ FEMA/FIRM maps:



☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Google Earth Pro - 1996, 2002, 2003, 2004, 2005, 2007, 2008, 2010.

or ☒ Other (Name & Date): Site Visit Photos April 2010 and October 2011.

☒ Previous determination(s). File no. and date of response letter: MVS-2007-415

(Approved JD on the unnamed tributary)

☒ Other information (please specify): An additional meeting occurred in April 2010 with Mr. Darrel Coleman, Mr. Jerry West, Mr. Raju Kakarlapudi (USEPA), Mr. Rob Gramke (USACE), Ms. Jaynie Doerr (USACE), and Mr. Matt Cosby (USACE). During the meeting, the unnamed tributary was flowing along the base of the fill and the area around the base of the fill appeared to be saturated. Mr. Coleman (owner of the area) agreed that the area was a mucky wet area prior to the fill being placed in the area. At one time the area was known as Willer's Lake. Mr. Coleman also stated that he had no idea that a Section 404 permit was needed for this type of activity.

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

\_\_\_\_\_  
Signature and date of  
Regulatory Project Manager  
(REQUIRED)

\_\_\_\_\_  
Signature and date of  
person requesting preliminary JD  
(REQUIRED, unless obtaining the  
signature is impracticable)

**G. EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:**

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the

permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the information listed above.